

**DOUBLE ALPHA  
ACADEMY**

**PRIMER  
PRO  
COLLATOR**



**US PAT. PEND**



Congratulations on your purchase of the PRIMER-PRO and thank you for choosing our product! This innovative device will greatly improve your reloading experience, by offering you an efficient, reliable and fast solution to filling your primer tubes.

The PRIMER-PRO has been carefully designed and manufactured to provide years of reliable service. Please familiarize yourself with the instructions in this manual and, before using the product **watch the video tutorials** available on the Product's page at [www.doublealpha.biz](http://www.doublealpha.biz).

### **Warning!**

- Handling live primers is inherently dangerous and you do so entirely at your own risk!
- Always wear appropriate eye and ear protection when handling primers and/or reloading.
- Make sure you are familiar and knowledgeable about your reloading process and your ammo specifications.
- Never operate any reloading equipment when under the influence of drugs or alcohol.
- Liability is limited only to replacement of this product or parts thereof. No additional warranties are expressed or implied by the manufacturer or the distributors and resellers.

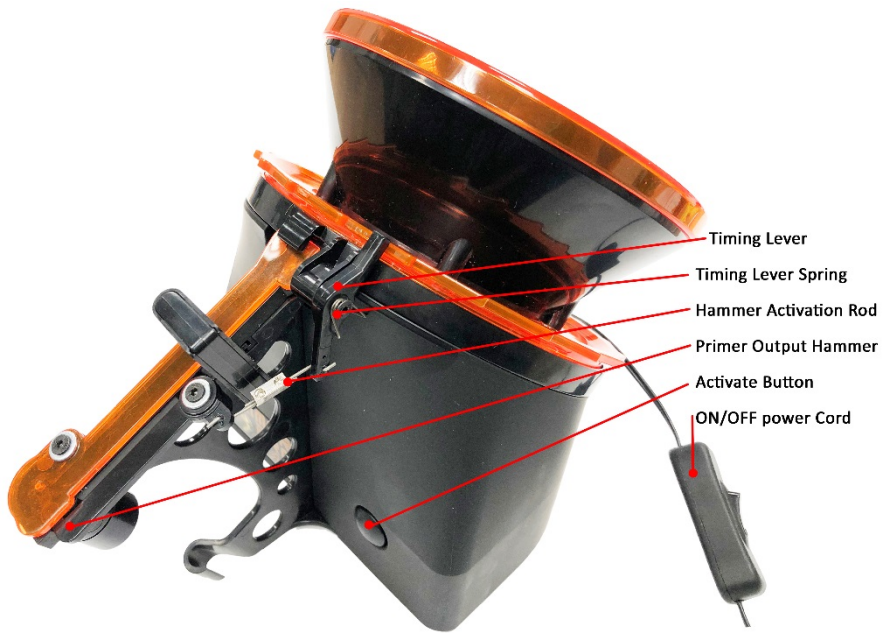
## Contents

In the Box.....	2
Parts Diagram .....	3
Operating Instructions, Quickstart Guide .....	4
Activate-Button Functions .....	6
LED Indications.....	6
Primer Output Hammer Adjustment .....	7
Troubleshooting.....	9

## In the Box

- Fully Assembled PRIMER-PRO Unit
- 12v Power Supplier, Dual-voltage, with two sets of prongs (110v and EU 220v)
- One Primer Tube Magnetic Collar (attached in place under the output hole at the bottom of ramp)
- Instruction Manual

## Parts Diagram



## Operating Instructions, Quickstart Guide

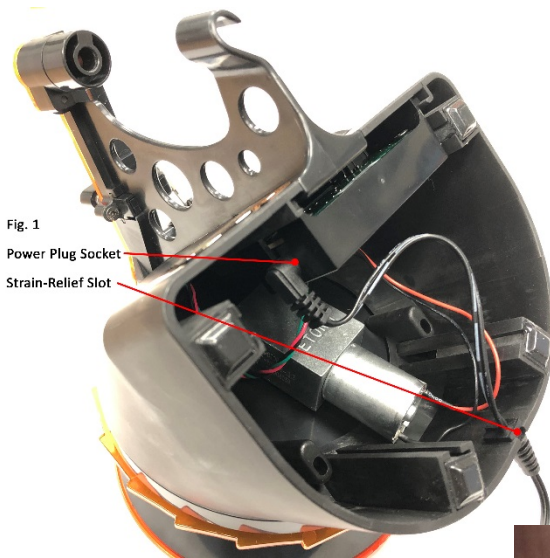
Your PRIMER-PRO ships fully assembled and almost ready to use. However, you do need to provide your own Dillon Primer tube, or other brand tube with an outer diameter of 7.9-8.0mm.

### Follow these steps:

1. Unpack the power adaptor and fit the correct prongs for your local wall socket.
2. Plug the power cord into the electrical box on the bottom of the unit, and press the cable's Strain-Relief into the slot on the backside wall. (see Fig. 1)
3. Remove the Primer Tube Magnetic Collar from underneath the output hole, and fit it onto your primer tube. Ensure the set-screw is backed out. It may be a tight fit, as it is important the tube remains exactly centered. Slide the collar down until you have about half an inch (12mm) of tube visible above it.
4. Bring the tube into place under the Output Ramp, and use both thumbs and forefingers to pinch the collar upwards and slide it up until it makes contact with the bottom of the output pocket (see Fig. 2). In this way you can ensure that the magnet is making contact with its counterpart steel ring in the bottom of the Output Ramp, and the top of the tube is making contact with the button of the output hole. This is important for correct primer feeding.
5. Tighten the setscrew gently. No need to over-tighten.
6. When placing the tube in place, always allow it to snap magnetically into place, and then spin it at least half a turn between thumb and forefinger, to ensure it is settled exactly concentrically. This prevents a possible small ledge from forming at one side of the tube's entry, which can cause primers to hang-up.
7. Make sure the power supply is plugged in and the ON/OFF switch on the cable is turned to ON. The red LED on the Output-

Ramp will quickly flash 5 times as the system starts up, and then will flash once every three seconds to indicate Ready/Standby.

8. Place 200-400 small primers into the bowl and replace the Bowl Cover. (Loading more than 400 primers will reduce the output speed.)
9. Press the Activate Button on the front panel to start the PRIMER-PRO.
10. The PRIMER-PRO is programmed to count 99 primers (with a variance of  $\pm 1$ ) and will stop once that count is reached. Remove the tube, empty it into your press, and replace it for the next run.



## Activate-Button Functions

The large button on the front right-side panel activates the PRIMER-PRO.

### **One Short Press:**

Start – the PRIMER-PRO starts working

Stop – the PRIMER-PRO will stop immediately, and retains the number of primers counted to that point. Pressing the button again commences counting from there.

### **One Long Press, holding until the LED quickly flashes 5 times:**

Resets the counter to Zero, and puts the PRIMER-PRO back to Standby mode. Remember to empty the primer tube before starting again.

## LED Indications

The red LED light positioned on the Output Ramp serves a double purpose: It provides light for the Optical Sensor assembled beneath the ramp that counts the primers, and it provides status information to the operator. These are the signals:

- After the power cord ON/OFF switch is turned to ON, the LED flashes rapidly 5 times to indicate power-up.
- The LED flashes once every three seconds to indicate it is in Standby and ready to run.
- The LED remains ON while the PRIMER-PRO is running and feeding primers, providing light for the Light Sensor Counter.
- The LED flashes rapidly continuously to indicate an issue/malfunction requiring attention:
  - There are no more primers in the collator, and the tube is not yet full
  - Primers are sliding down the ramp very slowly creating sensor errors.

- A problem at the exit hole has caused the primers to stack up on the Ramp. The collator will stop before this stack reaches the top of the ramp.

## Primer Output Hammer Adjustment

The Primer Output Hammer is factory calibrated and normally should not usually require adjusting. However, if you find that the primers are not exiting well, or the Hammer often seems to bounce them back up the ramp, it may need to be adjustment. **Please watch the video tutorial before making the adjustment!**

First, you should confirm this is indeed required: The tip of the hammer should be adjusted to move forward far enough to pinch the primer against the side wall above the exit hole, when in the forward position. In its back stroke it should retract almost to the edge of the ramp, but not far enough for the tip of the hammer to be retracted outside of the ramp (see Fig. 3). This movement can be difficult to see when the collator is running, and is far clearer to watch once filled using the slow-motion video feature of your phone.

Adjusting the range of motion of the Primer Output Hammer is done by loosening the two small setscrews on the two-piece Activation Rod and very slightly adjusting its length.

Start by rotating the Timing Disk until the Timing Level position is at the highest point of one of the teeth of the Timing Disk. You may need to run the motor to do this. In this position, the head of the Hammer should be retracted back until only its tip remains on the ramp. Only if it is much further forward than this (the tip nearly under the vertical slot in the ramp) does it requires adjustment!



Loosen the screws using a small 1mm Allen key, draw the hammer back to the correct position and retighten the setscrews. Do not apply much force on these small screw-heads.

The best way to confirm that the movement of the hammer tip is correct, is by filming it using the slow-motion video option on your phone.

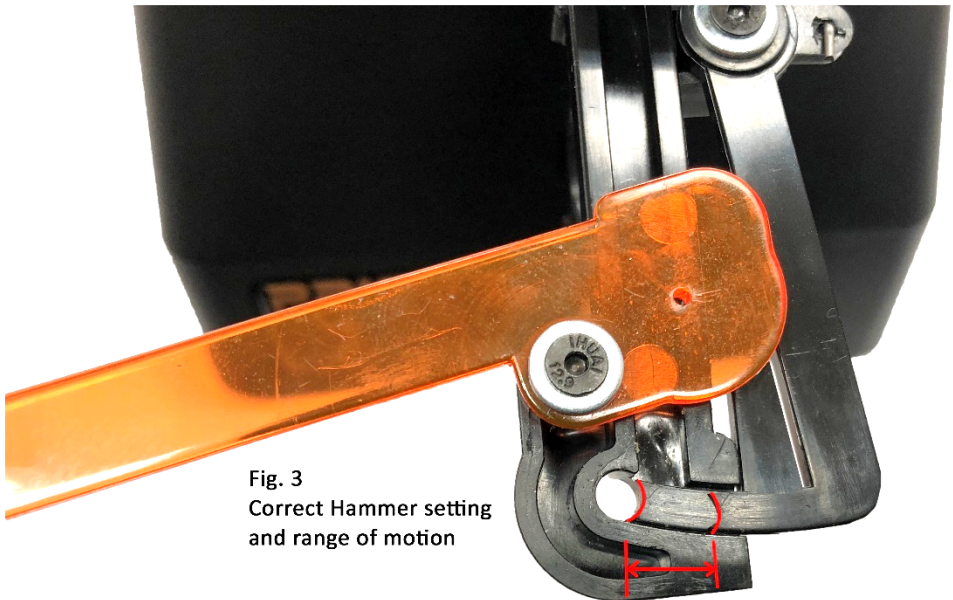


Fig. 3  
Correct Hammer setting  
and range of motion

## Troubleshooting

### **Font panel Activate Button appears stuck and does not click when pressed**

The Activate Button is PCB-mounted and fitted into a plastic box on the inside of the side wall. Occasionally this box can be dislodged sideways in its rails. This can create contact and friction between the button's body and the side wall pocket, making it stick. Wiggle the box a little to correct its position until the button is free. Pushing on the power-cord plug will likely move it in the correct direction.

### **Primers are sliding down the ramp slowly, creating errors or being bounce up by the Hammer**

It's time to clean! Most primers have a little lubrication remaining from their manufacturing process. This lube tends to build up on the exit ramp and can create friction, slowing down the primers. Use a dry cloth with an appropriate tool to wipe clean the slot of the output ramp. You may use a degreaser which is safe on plastics, but make sure you wipe it completely dry. Wetness on the ramp causes the primers to stick!

### **Primers are getting stuck in the exit hole and stacking up on the ramp**

- Ensure the exit hole is clear of any debris. Use a soft pipe-cleaner or a small brush to clean it periodically.
- Check your primer tube is well seated. Remember to spin it as you click it into place to ensure it is aligned.
- Make sure your primer tube has a small chamber on the entry hole. Not all primer tubes are equally good.
- Confirm the Primer Output Hammer is working correctly. It should momentarily be holding the primer against the side wall above the hole before it retracts, allowing the primer to drop. This can clearly be seen on slow motion video available on most smartphones.
- Make sure the Ramp Cover is in place and screwed tightly closed.

### **The Primer Disk seems to be rocking, not rotating smoothly**

Possibly a primer has found its way under the Primer Disk and is interfering with its rotation. Lift it up off the motor shaft, remove all primers or other obstacles, and re-seat it. Make sure the Timing Lever is not caught under the edge as you seat it back down.

### **Getting Incorrect Primer Count**

The count should load 98-100 primers in the tube. If any primers are left on the ramp, these are remembered and taken into account for the next tube. If the count is off:

- Clean the Exit Ramp
- Reset the counter by holding down the button until the LED flashes rapidly.
- Check that the small hole in the Output Ramp Slot, under the LED light is clean and clear of Debris.

### **Primer tubes filling too slowly (more than 2 min)**

- Use 200-400 primers in the funnel for optimal speed.
- Keep the device clean.
- Try to loosen slightly the 5 screws on the bottom of the Primer Disk. This allows a fraction more space between the Primer Disk and the Timing Disk which can increase output speeds.
- Avoid using dirty or heavily corroded primers.
- Check that there are no primers permanently stuck in some slots between the Primer and Timing Disks. If too many slots are blocked, output speed decreases. Use a toothpick or plastic rod/pin to push them back from the outside towards the inside (back into the funnel). Avoid using a metal tool which can damage the slots. Try not to put these primers back in use – most likely they are out-of-spec, with a deformed/damaged anvil which caused them to get stuck in the first place.

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